

## THE PRAGUE POST

*The Prague Post*, January 9, page A2

### 'Postcard rides winds across the Atlantic'

#### Before reading:

Do you prefer sending postcards, letters or e-mails? To whom and when do you send them? Do you have a pen-pal? Tell your class about your pen-pal and the country he/she comes from. What are the advantages of having a pen-pal?

Would you like to have one? What would you write to your pen-pal about?

Have you ever received mail that surprised you? Tell your class about it.

*For teachers: Number the paragraphs of the article and make copies of it. Cut the paragraphs, mix them and ask the students to work in groups to put them in the right order.*

#### Questions after reading:

1. Who is Jan Krátk and what did he find on the ground in Olomouc?
2. What was unusual about the postcard Jan found?
3. What do you know about a town called St. Paul?
4. Who sent the postcard?
5. On what occasion was the postcard sent? How was it sent?
6. What happens to most of the balloons?
7. How did the postcard get into the Czech Republic?
8. How far did the postcard have to "travel"?
9. What do the weather experts say about the way the postcard got to Olomouc?
10. What happened to Mark when the media learned about his postcard being found in Moravia?
11. What did Mark win?
12. What did Mark and his family do when they received Jan Krátk's letter?

#### Vocabulary:

*pen-pal* – pen-friend  
*dormitory* – internát,  
*vysokoškolská kolej*  
*blank* – prázdná, nepopsaná  
*weird* – zvláštní, divná  
*stream* – proud  
*neat* – čistý, uspořádaný  
*(am.slang - fajn, prima, senzační)*



*The Prague Post*, January 9, page B3

### 'Text-to-speech technology expands'

#### Before reading:

Do you have a mobile phone? What are the advantages and disadvantages of mobile phones? What are the advantages and disadvantages of fixed-line phones? Have you ever been in a situation when a mobile phone helped you – saved somebody's life, for example? What is the future of mobile phones, according to you? Draw a mobile phone of the future.

What do you use your mobile for? Do you send SMSs? What do you think about this method of communication?

#### Questions after reading:

1. How many people use mobile phones in the Czech Republic?
2. What does SMS mean?
3. How many SMSs were sent on Christmas Eve? How many on New Year's Eve? Did you send any SMSs on those days?
4. Could people with fixed-line phone receive SMSs?
5. Describe how the new technology works. (use information from the entire article)
6. What is the history of this new technology?
7. How was the new technology advertised?
8. Do phones need new equipment for the SMS-landline communication?
9. What are the advantages of text-to-speech technology?
10. What is impressive to Mr. Arellanes?
11. What difficulties has the technology overcome?

#### Vocabulary:

*fixed-line phone* – pevná telefonní linka  
*blitz* – intenzivní kampaň, nálet  
*tight-lipped* – mlčenlivý, držet jazyk za zuby  
*gadget* [gedžit] – hovor. čudlík, malý šikovný mechanismus  
*to tackle* – vypořádat se, pustit se do  
*intricacy* – spleť, složitost, komplikovanost

#### Activity 1:

A normal SMS has 160 characters. Write an interesting story in one normal-length SMS.

#### Activity 2:

If you could send one SMS to anyone in the world, who would you send the SMS to? What would you write to that person? Write the message down and share it with the class.

*The Prague Post*, January 16, page B6

### 'Playing Russian'

#### Before reading:

Work in groups and make notes: What comes to your mind when you hear 'Russia'? What do you know about Russia? Have you ever been to Russia? If yes, what was the most interesting and surprising thing for you? Tell your class.

Are you interested in Russia? Why? Why not? What do you think about its people, habits, countryside and art?

What famous Russian people do you know of? Tell your class about them.

Have you read any Russian literature? Have you listened to music by a Russian composer? Have you seen Russian ballet?

#### Questions after reading:

1. What places in Moscow did the author of the article visit or want to visit? Find out more about them in the article and in other sources.
2. How much are the entrance fees to galleries and museums for Russian people and how much for foreigners?
3. What, according to the author, is the best way for a traveler to get good prices?
4. Who is Mikhail Vrubel? Find out more about him.
5. What does the author think is a must for any visitor to Moscow?
6. What can be seen in the cemetery behind the mausoleum?
7. Where could the author communicate with Russian people in English?
8. What can be seen in the Museum of Revolution?

#### Vocabulary:

*to gouge* [gaujž] – am.slang. vydírat  
*to rid* – zbavit  
*bargain* – v hodná koupě  
*chagrin* [šegrin] – rozlobit, zarmoutit, zklamati, urazit něčí city  
*to whisk* – smést  
*superfluous* – zbytečný, nadbytečný  
*embarrass* – uvést do rozpaků  
*futile* – marný, bezvledný

#### Activity:

After reading the article, what places in Moscow would you like to visit? What places would you show your foreign friend if he/she came to your town? Prepare a tour for him/her.

# LESSON PLAN: INVENTIONS AND DISCOVERIES

Think about inventions and discoveries that changed the world. Work in groups and make a list. What do you know about these inventions and discoveries? When were they invented or discovered and by whom? Prepare a timeline (website: [www.cbc4kids.ca/general/the-lab/history-of-invention/default.html](http://www.cbc4kids.ca/general/the-lab/history-of-invention/default.html) can help you). What do you know about inventions of Czech scientists? Choose one invention and prepare a report about it.

What is the most important or interesting invention for you personally?

What else could be and will be discovered? For what and how would it be used? What do you think will be discovered in 10, 20, 50 years? What, according to you, would be the most important invention of the future? Draw a picture of it.

How do inventions change the world? Is it always for the well-being of people?

## NUCLEAR ENERGY

When was nuclear energy discovered? How has it been used?

In your exercise book make two columns – write all the positive things about nuclear energy that you can think of in one column, – write all the negative things about nuclear energy that you can think of in the second column. Compare your lists with the class.

The world entered the atomic age on December 2, 1942, at 3:25pm when a team of scientists led by Enrico Fermi were the first in history to initiate a self-sustaining nuclear chain reaction and control it. They discovered that when you split certain types of atoms they divide into other substances and create an incredible amount of energy.

This energy has been harnessed to power the world, help medical professionals see inside the human body, cure cancer, work smoke detectors, and many other great things.

The energy yielded from nuclear fission now provides 17% of the world's power. Nuclear energy is much cleaner than fossil fuel burning, but when there is an accident, the results are catastrophic.

At the end of World War II the atomic bomb was used by the United States. The Japanese cities of Nagasaki and Hiroshima were bombed. The detonation of a nuclear bomb over a populated city causes incredible damage and kills many people. Fifty-seven years after the detonation of the first nuclear bombs, the people of Nagasaki and Hiroshima still feel the effects of it.

Do you think nuclear energy has improved humanity?

Have its tragedies outweighed its successes?

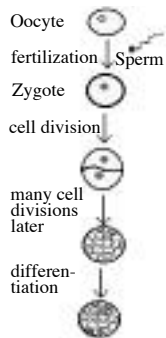
## CLONING

What is cloning? What do you know about it? Do you know how Dolly the sheep was cloned?

Clone = an organism, or group of organisms, derived from another organism by an asexual (nonsexual) reproductive process. Usually, the members of a clone are identical in their inherited characteristics – that is, in their genes – but differences can be caused by mutation.

(from [www.encyclopedia.com](http://www.encyclopedia.com))

In the picture below you can see how a new being comes into existence.

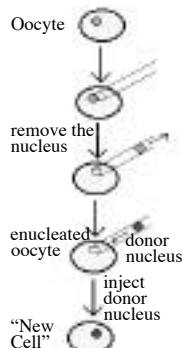


**Oocyte** [ouousait] = an unfertilized egg (zárodečná buňka vaječná).

**Zygote** [zaigout] = recently fertilized egg (zygota).

**Differentiation** = a natural process when cells specialize into a certain kind of cells. As a mass of embryo cells divide and differentiate, they create the being. Scientists agree that differentiation must have something to do with changes in the nucleus of cells.

**Nucleus** [nju:klijs] = the part of the cell containing the genetic material - the DNA all coiled up in organized structured called chromosomes (jádro, nukleus).



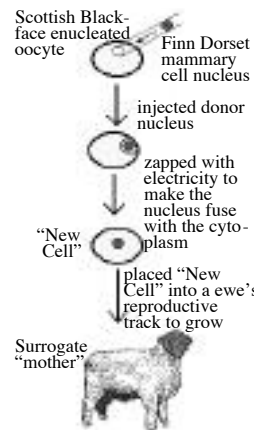
In 1975, Dr. Gurdon developed the method of "nuclear transfer". He was trying to clone frogs. He removed the nucleus from the frog's oocyte (this is called "enucleated oocyte"). Then he transferred a nucleus from a frog's gut cell into an enucleated oocyte.

This is the nuclear transfer (the transfer of a nucleus from one cell to another, creating a "new cell" with a different nucleus). Many of these new cells which Gurdon created behaved like a zygote and started to divide just like a normal developing embryo, producing a ball of cells. This ball of cells differentiated and after some time Gurdon had tadpoles. Because the tadpoles had all come from the gut cells of the same adult, they all had the same genetic material. They were all clones (identical twins of each other). But the tadpoles never grew into frogs.

**Vocabulary:**  
cell – buňka  
gut – střeva  
tadpole – pulec

Gurdon's method worked only with frogs (tadpoles). Scientists tried nuclear transfer with mice and cattle, but unsuccessfully. It was because many scientists thought that to make a clone a nucleus should be transferred from fast dividing

cells. Later they discovered that a quiescent cell (a cell that has left the cell cycle and stopped dividing) is better for cloning.



Scientists at the Roslin Institute, Scotland, used cells from an adult sheep's mammary (breast) glands for the "donor" nucleus. They grew the cells in tissue culture (an artificial situation that is used in laboratories to grow large numbers of cells in bottles) and

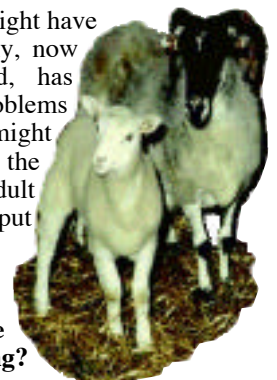
made them quiescent (stopped them growing and dividing). These were the cells of Finn Dorset sheep (a pure white breed of sheep). Then the scientists collected an oocyte from a Scottish Blackface ewe (breed of sheep with black head, "mother" of Dolly) and removed its nucleus. A nucleus from a quiescent mammary cell was injected into the enucleated oocyte. A tiny pulse of electricity was used to cause the new nucleus to fuse with the enucleated oocyte's cytoplasm and to "kick" cells into activity so they are more likely to divide. The new, fused cell was transferred into the reproductive track of a Blackface ewe. The scientists repeated this process 277 times! Then, finally a completely white Dolly (Finn Dorset breed) was born.

The total success rate was ONLY 0.4% (one lamb per 277 "new cells" made by nuclear transfer).

**Vocabulary:**  
mammary gland – prsní (mléčná) žláza  
ewe – ovce (samice)  
breed – plemeno  
surrogate – náhražka, surrogát  
(Resource: [www.synapses.co.uk/science/clone.html](http://www.synapses.co.uk/science/clone.html))

Recently you might have heard that Dolly, now five years old, has some health problems (arthritis). It might be because the nucleus of an adult animal was put into the oocyte.

What do you think about the safety of cloning?



You can find more information about cloning on:

- [www.globalchange.com/clonlink.htm](http://www.globalchange.com/clonlink.htm)
- <http://science-education.nih.gov/nihHTML/ose/snapshots/multimedia/ritn/dolly/>
- [www.probe.org/docs/humclon2.html](http://www.probe.org/docs/humclon2.html)

# CLONING HUMAN BEINGS

## What do you know about cloning human beings?

On November 25, 2001, a company called the Advanced Cell Technology Inc (ACT), Massachusetts, announced that it had created the first human embryos through cloning. Scientists removed the DNA from human egg cells and replaced it with DNA from a human body cell. The egg cells began to develop "to an embryonic state", according to a press release from the company. The president of this company said the process was not intended for human reproduction and he would not want to see the science move in that direction. His goal, he said, is to create human embryos through cloning and extract stem cells (Note: stem cells are a kind of master cell that can grow into any kind of cell in the body) with the goal of using them to treat a variety of illnesses. Avic president of ACT said: "Our intention is not to create cloned human beings, but rather to make lifesaving therapies for a wide range of human disease conditions including diabetes, strokes, cancer, AIDS and neurodegenerative disorders, such as Parkinson's and Alzheimer's disease."



Dave Weldon, a doctor, disagrees: "If you start allowing all ... labs ... to create human clones, then it's only a matter of time before somebody tries to bring a baby to birth because the implantation of those cloned embryos would occur within the privacy of the doctor/patient relationship."

President Bush criticized the creation of human embryos through cloning as "morally wrong". "We should not as a society grow life to destroy it, and that's exactly what's taking place," Bush said.

Jeffrey Kahn is the Director of the Center for Bioethics at the University of Minnesota says: "The thrust of the argument is that it's unethical to create human life that will be destroyed."

Dr. Paul R. Billings, a University of California professor, said that experience with cloning of animals shows that cloning is "unsafe and risky" because many of the young are born with deformities or die shortly before or after birth. He

said that even Dolly, the famous sheep that was the first mammal to be cloned, suffered from obesity and brain abnormalities.

**What do you think about the above written thoughts? Do you agree/disagree with any of them? Why?**

**Do you think that governments should control the cloning of human beings? What do you think should be done?**

British genetics expert Dr. Patrick Dixon says: "Over 170 nations of the world have no legislation whatsoever preventing the birth of human clones. ... We need global agreement and we need it urgently, or we will see clones born in many countries of the world."

Last summer, the U.S. House of Representatives voted to ban human cloning and set penalties of up to 10 years in prison and a \$1 million fine for those convicted of attempting to clone humans. The measure was never taken up by the U.S. Senate, so it never became law.

All EU members have signed the Charter on Fundamental Rights, which bans human cloning for reproductive purposes. Different countries within the EU have different levels of legislation regarding cloning and embryo research.

There are some controversial groups that operate secret labs outside the United States and want to use their embryos to impregnate a woman and produce a clone. (Resource: [www.cnn.com](http://www.cnn.com))

**Find information about the laws and legislation concerning the cloning of human beings in the Czech Republic.**

Here is one possible situation : A child is dying. Cells and a human egg would be used to clone the child. The clone would be implanted into a mother in a poor nation (she would be paid \$10,000) and the baby would be taken from her at birth. Tissues needed would be removed after birth (kidney at the age of two, for example) and the cloned child would be offered for adoption. Child would remain healthy on one kidney, older twin life would be saved. Childless couple would get a baby. Poor mother would get an income. (Resource: [www.globalchange.com/clone](http://www.globalchange.com/clone))

**Would you like to live in a world like that? Do you think that this would cause huge emotional and physical risks for the younger child?**

The cloned child can be born (like in the example above) and live, but sometimes only the cells from the fertilized egg or embryo are used. In some cases the embryo is not developed to the point where it becomes a child. There is a great deal of debate as to when life truly begins. Some believe that life begins at the moment of conception, while others believe that life begins during the 23rd week of pregnancy. The focus of the debate on human cloning is human rights. It is important to have an understanding of when an embryo becomes a fetus and when life and the rights that come with it begin.

**Vocabulary:**  
*fetus - plod, zárodek*



**When does life begin?**

**Do you think that the use of cells from a clone embryo are acceptable? If so, where would you draw the line between embryo cell use and fully developed clones?**

**Do you think that cloning is ethical? Why? Why not?**

**Activity 1**

**What do you think about cloning - animals, - plants, - tissues, - organs, - human beings after reading the above information? Discuss the issue in your class. If you are not sure about some facts, find information or ask your teachers or some scientists. Discuss the question of the ethics of cloning.**

**Activity 2**

**Write down questions you would like to ask about cloning and then ask the class. If nobody knows the answer to your question, try to find more information.**

**Who thinks that human beings should be cloned? - make one group. Who disagrees? - make another group. Discuss your arguments in your group and present them to the other group. After exchanging arguments, discuss the issue in your group again and make a final statement. Have you changed your attitude?**

With the example of nuclear energy we can see that inventions and discoveries can be misused and are being misused.

**Think about other examples of how the science has been or could be misused. What could be done about it? How can we stop science from being misused?**

## WORDS OF WISDOM: WISDOM

### Questions:

**Read the quotations and discuss them. Choose quotations you agree with and quotations you disagree with. Tell your class why.**

"You can tell whether a man is clever by his answers. You can tell whether a man is wise by his questions." - Mahfouz Naguib

"The only true wisdom is in knowing you know nothing." - Socrates

"Great are they who see that spiritual is

stronger than any material force, that thoughts rule the world." - Ralph Waldo Emerson

"If you have knowledge, let others light their candles in it." - Margaret Fuller

"Sit down before fact as a little child, be prepared to give up every preconceived notion, follow humbly wherever or whatever abysses nature leads, or you will learn nothing." - Thomas H. Huxley

"A scientist ... shouldn't be asked to

judge the economic and moral value of his work. All we should ask the scientist to do is find the truth—and then not keep it from anyone." - Arthur Kornberg, American biochemist and 1959 Nobel laureate

"Genius is one percent inspiration and ninety-nine percent perspiration." - Thomas Alva Edison

"The doors of wisdom are never shut." - Benjamin Franklin

# WHAT'S LIFE LIKE IN CANADA ?

2nd part (continued from Newspapers in Education vol.9 issue 6)

Education requirements vary from province to province. In Ontario, the province I'm from, all permanent residents between the ages of 6 and 16 must attend school. Most students continue to attend after the required period, to receive a graduation diploma in their twelfth or thirteenth year of school. Students focus on either academic or applied courses depending on what their goals are. If they want to work in a trade, then they will focus on applied courses. Should students want to go to university or college after high school, then they focus on academic courses. There are private and public schools. Besides passing all their required and elective classes, students must also complete 40 hours of community involvement activities and must pass the Ontario Secondary School Literacy Test, which is taken in Grade 10.

Of course there is more to growing up in Canada than just graduating from school.

There are many extra-curricular activities for teenagers to be involved in. Most young people play school sports, or musical instruments in school ensembles. Others are involved in youth groups or volunteer in the community. The area of Canada where I'm from has thousands of lakes for canoeing, swimming and fishing. Most people spend a great deal of their summers on the lakes trying to get away from the heat.

In the winter, Canadians stay warm by enjoying some of their favorite activities. This means that it's time for Hockey, which is what Canadians consider our national sport. We also enjoy skating, skiing, sledding and curling. Curling is one of the most popular winter sports after hockey. This may not be the kind of curling you may have seen as it is played on ice and the players use brooms to get rocks to stop on certain sections of ice. It may sound strange but it's addictive.

Canada became a country in 1876. Prior to

that it was a colony of the British Empire. It's still part of the Commonwealth, so we still recognize the Queen as our sovereign. However, she really has no political power within the country. There is a massive lack of history for Canada as it is such a young country. People in Europe live in houses older than Canada. As a result, Canadians tend to focus on the present and the future. Historically Canada, as a nation, has many things to be proud of, but also many things to feel badly for.

While no country is perfect, I think Canada is up there. Each year the United Nations makes a list of countries that have the best quality of living standards in the world. Each year Canada is either on top of the list, or close-by. That's something I'm proud of. While Canadians struggle to determine what their national identity is, they all know that it's a great place to live and grow up. It's a place where you are free to be who you are, whatever that may be.

(written by Chelsea Gay)

## STORY TIME: Why wisdom is everywhere (a tale from West Africa)

Anansi, the spider, had all the wisdom in the world stored in a huge pot. Nyame, the sky god, had given it to him. Anansi had been instructed to share it with everyone. Anansi looked in the pot every day. He learned how to make things out of fiber, how to hunt and build houses, and how to live well with family and neighbors. The pot was full of wonderful ideas and skills. Anansi greedily thought, "I will not share this treasure of knowledge with everyone. I will keep all the wisdom for myself!" Anansi decided to hide the wisdom on top of a tall tree. Holding the pot full of knowledge, he started to climb the tallest tree in the jungle. He struggled to balance the pot in front of himself while climbing at the same time. Anansi's son, Intikuma, watched with great fascination as his father struggled up the tree. Finally he simply said, "If you tie the

pot to your back, it will be easier to cling to the tree and climb."

Anansi heard this sensible advice but shouted in a rage, "A young one with some common sense knows more than I, who has the pot of wisdom!" Anansi threw down the pot of wisdom in a fit of temper and disgust. Pieces of wisdom flew in every direction. People found bits of wisdom scattered about and took them home for their family and neighbors. That is why to this day, no one person has all the world's wisdom. People everywhere share small pieces of it whenever they exchange ideas.

(from 'Wisdom Tales' by Heather Forest)

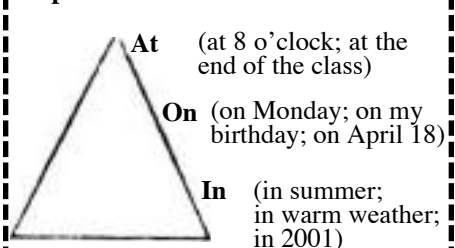
### Questions:

The past perfect tense was used in this story. Underline the forms of the past perfect tense in the story. When and why is it used? Create a timeline.

Is there any difference between wisdom and knowledge? What should people do with the knowledge and wisdom they have? What knowledge or skills that could serve humankind do you have? Would you like to develop any? Do you agree with the story that "no one person has all the world's wisdom"? Why? Why not?

## CZ ENGLISH? NO!

### Prepositions of time



This triangle might help you to decide which preposition of time to use. 'At' a certain time, 'on' a certain day or date and 'in' a specific period of time (seasons, etc.).

'In' is also used to express a future time (I'll be back in five minutes. - *Vrátím se za pět minut.* I'll graduate in three years. - *Školu dokončím za tři roky.*)

## DID YOU KNOW ?

### THE OLDEST UNIVERSITIES IN THE WORLD

Do you know, where the oldest university is? When was Charles University founded?

Here is a list of some famous old universities with their founding dates:

1. 1119 - Bologna (Italy)
2. 1150 - Paris (France)
3. 1167 - Oxford (U.K.)
4. 1218 - Salamanca (Spain)
7. 1284 - Cambridge (U.K.)
10. 1348 - Charles University (Czech Republic)
27. 1551 - University of Mexico (Mexico)
28. 1551 - San Marcos (Peru)
40. 1636 - Harvard University (U.S.A)

Find out what scientists taught or studied at these universities. What discoveries were made there?

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